SAFEGUARDING YOUR FOOD AND DRUG SUPPLIES -- No. 33

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A radio talk by W. R. M. Wharton, Chief of the Eastern District, Federal Food and Drug Administration, delivered Monday mornings at 10 a.m. Eastern Standard Time, through station WJZ, New York, and associated National Broadcasting Company stations.

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Good morning, my radio friends. Your government representative comes to you today for the thirty-third time to tell you how your foods and drugs are safeguarded by the enforcement of the Federal food and drugs act and to tell you how to read the labels in order that you may protect yourselves and become discriminating, careful, and economical buyers.

Now for my story. There is a season of the year, and that is just before the maturing of the Florida citrus crop, when grapefruit is practically off the market. Consequently, the early shipments of Florida grapefruit command a higher price than is obtainable later. Some years ago, the incentive to secure an early and therefore a high market for their products caused some of the Florida citrus growers to pick their fruit for market before it was ripe. Immature grapefruit has a green skin and is also very acid in taste because of under-development. Moreover, it has relatively little juice.

Your Federal food and drug officers learned that certain fruit growers in Florida were picking immature grapefruit for the market, and were disguising this immaturity by a treatment which gave the green skin of the fruit a golden yellow color. But remember--- a green-skin fruit is not always immature.

A small party of Federal food and drug inspectors immediately began operations in Florida and they soon found a grower who was picking exceedingly immature fruit. This fruit had a green-immature-looking rind and, on cutting through the cross-sections, the fruit showed very little juice and a very white, ricey appearance. The taste was exceedingly acid. On being tested chemically, the physical evidences of immaturity were confirmed. This fruit was really so immature as to be unpalatable. Now, if this fruit had been sent to market, you, Mr. and Mrs. Consumer, would have been fooled by it. Because of its yellow color, you would have thought it was ripe instead of being unripe and unpalatable as in fact it was. Your inspectors observed the loading of that immature fruit into wagons after which it was

taken to a packing house equipped with what is known as a "sweat room," a tightly sealed room in which kerosene stoves are burned to produce heat and to furnish gases of combustion which change the color from green to yellow and thus give an artificial color to the rind of the fruit. I want to make it clear that gasing ripe fruit to give it a good color is not very objectionable. But this fruit was immature. After watching the filling of this sweat room with unripe grapefruit, your inspectors kept the plant under surveillance and, at the end of about a day and a half, workmen unsealed the room and took the fruit out. Now, we found a golden yellow color on the rind of the fruit. The green of the rind had practically all disappeared and we had a yellow product, a product which looked like ripe grapefruit though it was still immature. It was still unpalatable, in fact; but to the eye it looked ripe. This fruit was packed into regular boxes and placed in a car for shipment in interstate commerce.

In the meantime, the packers of the fruit became aware that government inspectors were watching their operations and they became afraid, because they knew that they were about to violate a Federal law. Your inspectors, however, continued to watch the car. Night came on, but the Federal food and drugs inspectors remained on the job. Along about 10 o'clock P.M., a switching engine hauled the car out into the railroad yards and stopped it at a place where the door of the fruit car was just opposite another and empty freight car. Presently workmen came along, opened the doors of the loaded car and began to transfer the boxes of fruit into the empty car. The transfer was completed, the doors of the newly filled car were closed and sealed, and, a little later still, the car began its journey to a northern fruit market.

Now, what was the object in transferring this fruit from one car to another? The object was to prevent your inspectors from finding the fruit when it reached its destination. But your inspectors, having secretly watched the transfer operations, knew the number of the car in which this illegal fruit was actually shipped. They reported this car number and the facts to inspectors at the place of destination and those inspectors secured a Writ of Seizure from the Federal Court and this car was seized as violative of the terms of the Federal food and drugs act. This and other cases of similar nature---- together with Florida State Legislation later enacted--- have resulted in substantially preventing shipments of artificially colored, immature, and unpalatable grapefruit to be sold to you as ripe grapefruit.

It is, my friends, by actions such as these that your food and drugs supply is protected by means of the enforcement of the Federal food and drugs act.

Now, for my read-the-label information. The subject today is Citrus Fruit. The most common kinds of citrus fruit in this country are oranges, lemons, grapefruit and tangerines. Just to give you an idea of the quantity of citrus fruit consumed in the United States, I may say that there are produced annually in this country an average of thirty-four million boxes of oranges. This would mean that each person of the country on the average

consumes five dozen oranges each year. Oranges contain an abundant amount of Vitamin B, the so-called anti-neuritic vitamin, and Vitamin C, the so-called anti-scorbutic vitamin which prevents scurvy. Both of these vitamins are essential in the diet and, besides, oranges contain minerals and other elements required for proper nutrition. So, my friends, the first thing you learn from this talk is that you should eat plenty of citrus fruit.

Oranges and grapefruit sold in the United States are produced in California, Florida, Porto Rico, Cuba, Texas and Arizona and to a lesser extent in Louisiana. Louisiana, Mississippi, Alabama, and northwest Florida furnish a limited quantity of splendid Satsuma oranges. Texas and Arizona are producing increasing quantities of excellent grapefruit, but the principal production of citrus fruit occurs in California, Florida, Porto Rico, and Cuba, including the Isle of Pines.

California produces Navel and Valencia oranges and comparatively small quantities of grapefruit, whereas Florida, Porto Rico and Cuba produce large quantities of the principal varieties of oranges except Navels, and large quantities of grapefruit.

You, Mr. and Mrs. Label Reader, should determine the characteristics of flavor and taste of the oranges and grapefruit which suit you best, then associate that with the place of origin and read labels to determine that you get what you want. Box labels practically always state the place of origin of the product.

The next thing the label readers should know is the seasons when grapefruit and oranges are available in the markets. This is important because the middle and late seasons usually furnish the highest quality of such products. Porto Rico sends its products to our markets first, beginning with oranges and grapefruit late in July or August, and the season continues until the following June. Cuba begins its shipments just a little bit later than Porto Rico, and Florida comes into the market with limited quantities of oranges and grapefruit in September. The Parson Brown variety of oranges represent the early Florida shipments, followed by Pineapple oranges and other varieties. The season ends with shipments of the late variety Valencias from April to the following June. While some Florida grapefruit starts moving in September, the heavy movement is usually as follows in the order of their ripening by variety--- Triumph, September to January; Silver Cluster, December to April; Marsh Seedless, February to May; McCarthy, February to June; Duncan, December to April. California begins its shipments of oranges in early November with Navel oranges, and these are shipped from then on to June. Valencias begin to move from California in May and shipments of these continue to November so that California furnishes oranges the year round. About one-half of the California crop are Washington Navels and one-half Valencias. California grapefruit is ready in January and continues until October, but California grapefruit is seldom seen in the markets east of the Rockies. We are now storing considerable grapefruit, making it possible to buy it any time during the year.

Now, my friends, knowing the seasons for oranges and grapefruit, you can determine what varieties will be available at any particular time and the origin of the products to be found in the market. And you can check your information by reading labels for place of origin as well as statements of varieties, when made on the box labels.

Tangerines come chiefly from Florida. Practically all of these are of the Dancy variety. They appear on our markets during November, December and January. They are packed in half boxes and the tangerines vary in size from size 224s, fruit with diameter of 2-1/8 inches, to size 48s, fruit having a diameter of 3-3/4 inches.

The size of the citrus fruit you buy is important. If you ask your grocer for a dozen oranges, or a dozen of those oranges to which you point, you will have no definite idea of whether the price you are charged is the proper price to pay in relation to oranges of a larger size nor whether the price asked per dozen for any particular lot of oranges represents a better buy than a different price for another lot. Now, my friends, citrus fruit is definitely sized and is bought by your dealer by size; and the sizes are not limited to small, medium and large but, indeed, there are some 10 sizes of oranges and there are seven sizes of grapefruit. The size of Florida citrus fruit is fixed by the number which may be placed in a two compartment box which holds 1-3/5 bushels. It takes only 80 very large oranges to fill such a box whereas it takes 350 very small oranges to fill such a box. In between, there are sizes 96s, 100s, 126s, 150s, 200s, 250s, 324s, all of which mean that the number stated are required to fill a 1-3/5 bushel box. Oranges are known by size under these stated numbers. For instance, a 150-size orange is an orange of which 150 are required to fill a 1-3/5 bushel box. 150s oranges have a diameter of about three inches. An orange of a size requiring 96 to fill a box has a diameter around four inches, whereas the size requiring 324 to fill a box has a diameter of about two inches. You will find the size numbers, 96,100,126,150, etc. stencilled on the end of each box of Florida oranges. Learn to know what these numbers mean, buy oranges by size and pay a relatively proper price for them. But always keep in mind that there is always some variation in size.

Let me illustrate the advantage of this. In one store, you may find size 150 oranges being sold at 50 cents per dozen. In another store size 126 may be sold at 50 cents per dozen. If both are the same grade, then of course, the 126s are the best buy because they are larger in size.

California oranges are labeled on the end of the boxes with the statement of the count and the diameter of the oranges. For example, the legend will read "Net count 150, average diameter three inches."

Grapefruit is packed according to size in boxes of the same dimensions as those used for oranges and these run 28, 36, 46, 54, 64, 70 and 96 to the box. Obviously the 28s are the largest size and these average six inches

in diameter and the 96s are the small size. These approximate four inches in diameter. The most popular sizes are 54s, 64s, 70s. The diameter of these sizes are respectively around 4-3/4 inches, 4-1/2 inches and 4-1/4 inches, but there will always be some variation in size.

The next thing the label reader should learn about oranges and grapefruit is that these commodities are frequently sold by grade. The Bureau of Agricultural Economics of the U. S. Department of Agriculture has established three grades for citrus fruit and these are called U. S. Fancy Grade; U. S. No. 1 Grade; and U. S. No. 2 Grade. All fruit not so classified is called "Unclassified." The specifications for these grades as applied to grapefruit and oranges and as applied to the products of California, Florida, Texas and Arizona, etc., differ in minor details, but, for the purposes of this discussion, the definition specified for Florida's citrus fruit will be used.

U. S. FANCY GRADE is citrus fruits of similar varietal characteristics which are mature, well-colored, firm, well-formed, smooth, thin skinned, free from decay, bruises, buck skin, creasing, scab, ammoniation, spray-burn, cuts which are not healed; free from injury by black or unsightly discoloration, scars, scale, thorns or green spots and free from damage caused by dirt or other foreign materials, free from damage caused by sprouting seeds, dryness, limb rubs, disease, insects, or mechanical or other means and not more than 20% of the surface of each fruit may show light discoloration.

U. S. NO. 1 GRADE differs from U. S. Fancy Grade in that citrus fruit of this grade is required to be only fairly well-colored instead of well-colored, and only fairly thin-skinned instead of thin-skinned. U. S. No. 1 citrus fruit does not have to be entirely free from ammoniation but only from damage that materially affects the appearance caused by ammoniation. U. S. Grade No. 1 fruit likewise may be affected with injury caused by scab, scars, scale, thorn scratches, green spots, dirt or other foreign materials, sprouting, dryness, limb rubs, disease, insects or mechanical or other means, but must not be affected in such a manner as to damage it. Damage in this sense means injury which materially affects the appearance or the edible or shipping quality of the fruit, whereas injury means any blemish which more than slightly affects the appearance, edibility, or shipping quality of the fruit. In U. S. Grade No. 1, not more than 75% of the surface of each fruit may show light discoloration, except when designated U. S. Grade No. 1 Russet.

U. S. NO. 2 GRADE citrus fruit is required to consist of citrus fruit of similar varietal characteristics which are mature and which may be only slightly colored. The fruit in this grade needs to be only fairly firm. It may be slightly misshapen and slightly rough but must be free from decay, bruises, and cuts which are not healed, and from serious damage by black or unsightly discoloration. The fruit must not be affected with serious damage from other causes and this means injuries which seriously affect the appearance, or the edible or shipping qualities of the fruit.

It may be thick-skinned. Citrus fruit falls into two color classifications called Brights and Russets, and definite color specifications are laid down so as to differentiate Brights from Russets. Nothing but Brights are allowed in the Fancy Grade.

Now, my friends, the citrus fruit you buy, especially if it is Florida fruit, has in all likelihood been sold by grade through all channels of trade right down to your grocer. Do you buy by grade or do you take what your grocer gives you and pay without exercising any choice or discrimination whatever?

Why not make an effort to become familiar with the grade characteristics of fruit? Why not make inquiries of your grocer to determine what grade of fruit he is selling you, whether it is "Fancy," "No. 1 Grade" or "No. 2 Grade" and then determine for yourselves whether you are getting what you want and whether you are paying the proper price for the grade you receive? For the same size, U. S. Fancy Grade Oranges, for example, may sell for from 3 to 5 cents per dozen more than U. S. Grade No. 1. U. S. Grade No. 1 may sell for from 3 to 5 cents per dozen more than U. S. Grade No. 2. The difference between the Fancy and No. 2 Grade may be from 6 to 10 cents per dozen. Other factors may influence the price, however. California fruit is seldom sold according to U. S. Grades. The prevailing commercial grade designations for California citrus fruit are "Extra Fancy" and "Fancy" and "Choice." Extra Fancy is the best grade; Choice is the poorest grade.

Wrappers on citrus fruit do not give you any worthwhile information. you will have to read labels on boxes to secure the information you need in your marketing. And you will have to get information from questions asked of your dealer and from observations which you make yourselves.

In some markets, russet citrus fruit is preferred in the belief that this fruit is a better quality than bright colored fruit. This may or may not be true. It depends on the smoothness of texture and juiciness of the fruit. Perhaps it will surprise you to know that russet fruit grows on the same trees as the bright fruit. There are a few expressions used in the sale of citrus fruit to indicate quality. For example, "Indian River" is considered by some as meaning a superior variety of oranges. This term applies to an undefined area extending from Titusville to Fort Pierce on the eastern coast of Florida. This area had acquired a reputation for very good fruit.

Now, my friends, I want you to learn to read the labels and buy citrus fruit intelligently. In order to learn about citrus fruit, you should have a copy of this talk. I will be glad to send you one and I will send you also, copies of all my previous read-the-label talks which now cover a large variety of food products. All you have to do is to write to W.R.M. Wharton, United States Department of Agriculture, 201 Varick Street, New York City.

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